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the lobes. Another worm decapitated at the same date, though of apparently weaker vitality, had regenerated all the excised portions, and showed a completely formed brain, with lobes of the normal size in contact.

Messrs. Burnett Landreth and J. Addison Campbell, and Mrs. Cornelius Stevenson, were elected members.

FEBRUARY 3.

Mr. GEORGE W. TRYON, Jr., in the chair.

Twenty-seven persons present.

FEBRUARY 10.

Rev. H. C. McCOOK, D. D., Vice-President, in the chair.

Twenty-two persons present.

The Internal Cambium Ring in Gelsemium sempervirens.—Dr. J. T. ROTHROCK, at the meeting of the Botanical Section held February 9, called attention to the internal cambium ring in the stem of *Gelsemium sempervirens.* It might well be designated as the inner cambium. His attention was attracted by the fact that in a *stem* of three-eighths of an inch diameter, the pith was actually less in diameter than in a *twig* of a quarter the size of the *stem.* Microscopic examination showed that in the larger stem there were ordinarily four or more points, at which a well-defined swelling curved inward from the circumference of what should have been the pith-cavity. These swellings resolved themselves when closely examined into :—

1. Toward the centre an imperfectly defined membrane, resembling cuticle, which was not always present.
2. One or more rows of large cells like the parenchyma we find under the epidermal layer.
3. Several poorly defined layers of smaller cells, such as often mark the limits of growth in bark.
4. The frequent presence of bast fibres or of sclerenchyma cells.
5. An evident layer of thin-walled, square cells, closely resembling, though somewhat smaller than those of the external cambium. They showed signs of division, which indicated that they were still a living tissue.

These facts explained at once why the pith was constantly being encroached upon until it at length almost disappeared. The medullary rays dipped down through, and widened out, in this inner cambium, *inwardly*, just as they did *outwardly*, in the usual form of cambium layer. He also remarked that bast fibres had long been known to exist in the pith of *Tecoma radicans*, and in this case something like an inner cambium would be found, though it is more obscure. *Sambucus Canadensis* also exhibited in the very large stems a smaller pith than in those of moderate size. In this there was nothing comparable to the inner cambium. He also remarked that for the past two winters his attention had been called to the presence of considerable quantities of chlorophyll in the pith of *Lycium vulgare*. This was not confined to the smallest stems, but was found also in those of over a quarter of an inch in diameter, and where of course a considerable belt of hard wood was found between the pith and the outer zone, where chlorophyll is expected. It was also observed in *Lycium* that the chlorophyll was not in the form of bodies but diffused in character, as it is said to be in some infusorians. In *Lycium* the cells of the pith showed, in winter, abundance of protoplasm which had the nucleus on one side and very striking bands extending thence across the cell to the further side.

The following was ordered to be printed :—